

DETERMINANTS OF PROFITABILITY ON INSURANCE COMPANIES IN ETHIOPIA

Dr. N.Balakrishnan *

Abstract

This paper analyzes the effects of firm specific factors (Firm size , leverage ratio, tangibility of assets, liquidity ratio, loss ratio/ risk, Firm growth and premium of growth) and macroeconomic factors (economic growth and inflation) on profitability Measured by ROA. The sample in this study includes ten insurance companies for ten years (2007-2016). Secondary data obtained from the financial statements (Balance sheet and Profit/Loss account) of insurance companies, and financial publications of MOFED are analyzed.

From the regression result; size, leverage, tangibility of asset, loss ratio/ risk, firm growth and premium growth are identified as significant determinants of profitability hence firm size, tangibility of asset, firm growth and, premium growth are positively related.

In contrast, leverage and loss ratio/ risk are negatively but significantly related with profitability. Liquidity, inflation, and economic growth are not significant determinants of profitability. In order to survive negative shocks and maintain a good financial stability, the financial managers and policy makers should identify the key performance determinants of insurance companies. Because of this, the current study specified an empirical framework to examine the firm specific and macroeconomic factors affecting profitability of insurance companies as measured by Return on Asset (ROA).

Keywords:

Profitability,
liquidity ratio
inflation,
economic growth
Return on Asset

* Assistant professor, Accounting and Finance Department, College of Business and Economics, Wachemo University, Ethiopia.

1. Introduction

Background of the study

The performance of any firm not only plays the role to increase the market value of that specific firm but also leads towards the growth of the whole industry which ultimately leads towards the overall prosperity of the economy Hafza malik (2011). The financial system comprises of financial institutions, financial instruments and financial markets that provide an effective payment, credit system and risk transfer and thereby facilitate channelizing of funds from savers to the investors of the economy.

Statement of the problem

Boadi (2013), stated that some developed country's have seen significant improvements in their economy that leads the emergence of insurance industry and mobilizing of funds has been exercised and has made huge investment that have facilitated the development of the nations. Investors can focus only on their business after transferring the risks which would adversely affect their business to insurers, even risk-averse business persons can undertake projects and engage in economic activities. As a result , there is a need for additional study which adds value to the insurance industries in Ethiopia. Therefore, this study includes external factor which affect insurance companies' profitability to fill the gap of the inconsistent results of the study.

Objective of the study

The main objective of the study is to analyze the determinants on the profitability of insurance companies in Ethiopia.

Significance of the study

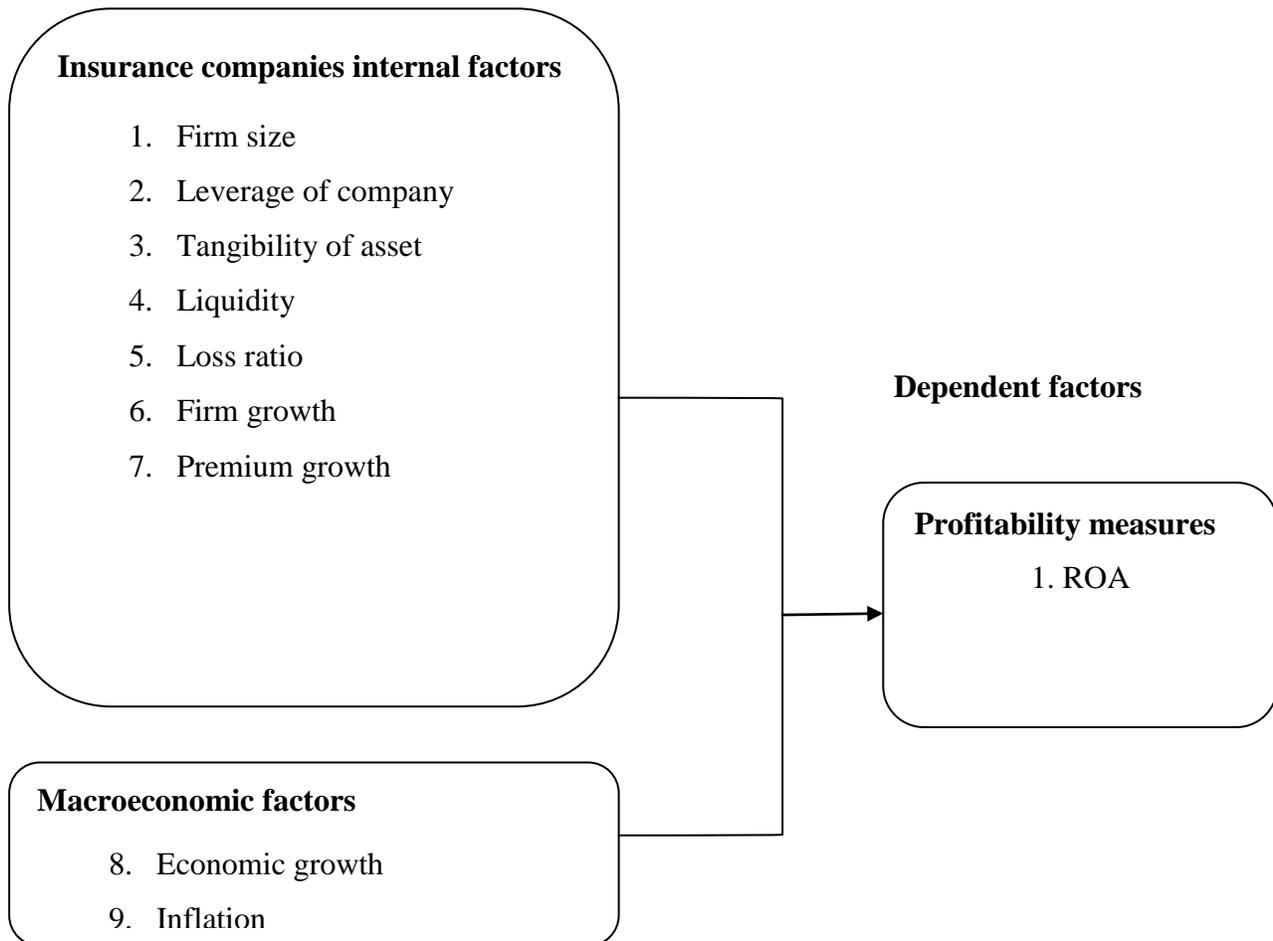
In Ethiopia, a few researches have been investigated on factors affecting Ethiopian insurance companies' profitability, so this study use as a base for other studies in the same field, The study also provides a comprehensive framework and literature about of insurance company's financial performance, and the factors influencing profitability in the case of Ethiopian insurance companies. To provide some conclusions and recommendations for top management and decision makers at insurance companies to deal with independent variables that affect financial performance In order to enhance their company financial performance. The study is important to

identify the effect of firm size, Leverage, Tangibility of assets, Liquidity, Premium Growth, Loss ratio, firm growth, economic growth and inflation on profitability of Ethiopian insurance companies

CONCEPTUAL FRAMEWORK

(Mugenda, 2003), define a conceptual framework a hypothesized model identifying the model under the study and the relationship between the independent variables (presumed cause of the changes of the dependent variable) and dependent (the variables which the researcher wishes to explain). The goal of a conceptual framework is to categorize and describe concepts relevant to the study and map relationships among them.

Independent factors



RESEARCH METHODOLOGY

Data type and data sources

The researcher was analyzed a balanced panel data of ten insurance companies in Ethiopia operating over the last ten years. Panel data selected by the researcher in order to meet the research objectives as it best fits better than the single time series or cross-sectional alone. Panel data analysis is a method of studying a particular subject within multiple sites, periodically observed over a defined time frame.

Total population and Sampling mechanism

To achieve the research objectives purposive sampling was used so as to include all insurance companies established and serving with in the specified period of time from June 2007 to June 2016 . In order to that, the size for samples are ten insurance companies operating over the period of ten years.

Data analysis

To analyze the collected data the researcher was used descriptive statistics, correlations, and multiple linear regression analysis and diagnostic tests. The collected data would be analyzed by using E-views version 10. Descriptive study produced mean, minimum, maximum and standard deviation for each variable for Ethiopian insurance companies during 2007-2016.

Correlation analysis

This study is show that how variables are related with each other. The results of this analysis was represented the nature, direction and significance of the correlation of the variables considered under this study.

RESULT AND DISCUSSIONS

Correlation Matrix of Explanatory Variables

Correlation									
	SIZ	LEV	TOA	LQ	LOSS	GRI	PGR	IR	EGR
SIZ	1.000000								
LEV	-0.15130	1.000000							
TOA	0.018712	-0.15681	1.000000						
LQ	-0.12940	0.413930	-0.39081	1.000000					
LOSS	-0.12080	0.513667	0.051979	0.16071	1.000000				
GRI	0.19705	-0.24236	0.337109	-0.4957	-0.02131	1.000000			
PGR	0.07490	-0.08420	-0.2280	-0.1087	0.04210	-0.02638	1.000000		
IR	-0.18583	0.08387	-0.0673	0.24628	0.057842	-0.31926	-0.2584	1.000000	
EGR	-0.11873	0.036180	-0.08078	0.060036	-0.04105	-0.11068	-0.1496	0.3573	1.000000

Source: computed from E-views 10 results (2018)

A correlation is a single number that describes the degree of relationship between two variables. In other words, multi collinearity describes the relationship among explanatory variables. As indicated on the correlation matrix almost all correlations that have occurred among explanatory variables are surprisingly weak correlations; this indicates there is no the existence of multi collinearity problem on the study. Even if, relatively high positive correlation existed between loss ratio and leverage with value of correlation (0.513667) and liquidity and leverage with value of positive correlation of (0.413930) the researcher ignored this near multi collinearity problem. Because Cooper and Schindler (2009) and Hailer et al (2006) suggested that multi collinearity problem should be corrected when the correlation extent to be above 0.8 and 0.9 respectively.

Pearson's correlation coefficient matrix of ROA and explanatory variables

Correlation										
	ROA	SIZ	LEV	TOA	LQ	LOSS	GRI	PGR	IR	EGR
ROA	1.000000									
SIZ	0.51538	1.000000								
LEV	0.0639	-0.20130	1.000000							

TOA	0.32498	-0.09924	0.29783	1.000000						
LQ	-0.16396	0.020923	-0.16582	-0.42064	1.000000					
LOSS	-0.36853	-0.12150	0.601350	0.15968	0.09217	1.000000				
GRI	0.411039	-0.21341	-0.23275	-0.54570	0.318110	0.04270	1.000000			
PGR	0.29530	0.07490	-0.15420	0.32107	-0.1087	-0.03196	0.20052	1.000000		
IR	-0.10629	-0.27380	0.13397	0.30621	-0.05130	0.077144	-0.27426	-0.18820	1.000000	
EGR	0.32417	-0.19892	0.026188	0.048239	-0.11970	-0.14002	-0.17055	-0.1496	0.29930	1.000000

Source: Computed from E-views 10 result (2018)

As shown in the table above, Correlation test shows that return on assets (ROA) has strong and positive correlation between size of insurance companies with the value of (0.51538), growth of insurance companies with the value of (0.411039), tangibility of asset with the value of (0.32498), growth in GDP with the value of (0.32417), and Growth in gross premium with the value of (0.29530). Leverage ratio with the value of (0.0639) has weak and positive correlation with ROA. Loss ratio with the value of (-0.36853), Liquidity with the value of (-0.16396) and inflation with the value of (-0.10629) has strong and negative correlation with ROA. This implies that, as the liquidity, inflation and loss ratio increases, return on asset moves to opposite direction.

Results of Regression Analysis

Random effect regression results for ROA model

Dependent Variable: ROA				
Method: Panel EGLS (Cross-section random effects)				
Total observations: 100				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.721431	0.122460	-3.743960	0.0094
SIZ	0.030260	0.068939	3.792086	0.0000
LEV	-0.082811	0.001103	-2.991007	0.0050
TOA	0.067636	0.089502	2.908023	0.0531
LQ	-0.003100	0.003721	-0.304216	0.7998
LOSS	-0.140264	0.012250	-3.003521	0.0374

GRI	0.085921	0.001747	2.646341	0.0162
PRG	0.013047	0.004508	8.957990	0.0642
IR	-0.010620	0.005131	-0.030676	0.6758
EGR	0.316100	0.381864	0.8062605	0.5797

R-squared	0.817290	Mean dependent var	0.015743
Adjusted R-squared	0.785374	S.D. dependent var	0.057534
S.E. of regression	0.033107	Durbin-Watson stat	1.573205
F-statistic	28.07556		
Prob(F-statistic)	0.000000		

Source: Computed from E-views 10 result (2018)

The estimation result of the panel regression model used in this study was presented in table above. R-squared was measured the goodness of fit of the explanatory variables in explaining the variations in profitability of insurance companies measured by ROA. As shown in the table above, the R-squared and the adjusted-R squared statistics of the model were 81.73 and 78.53 percent respectively. This result indicates that 78.53 percent of variation in the dependent variable is explained by the explanatory variables. That means the explanatory variables (such as, size of the companies, leverage, tangibility of asset, liquidity, loss ratio, growth of companies, premium growth, inflation and economic growth) jointly explain about 78.53 percent of the variation in the return on asset.

FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary

A descriptive analysis result shows that, insurance companies averagely generating positive ROA with a mean value of (0.027662). The mean value of size for sampled insurance companies was 684percent; the mean value of leverage was 201.1percent, the mean value of tangibility of asset was 31.7 percent, the mean value of liquidity also 201.4 percent, the mean value of loss ratio indicates 28.45 percent, the mean value of firm growth of 29.78 percent, the mean value of premium growth of 24.8 percent, mean value of inflation of 18.95 and the value of economic growth rate for last ten years was 24.8 percent.

The regression result of the study with regard to profitability measured by ROA shows that; size of insurance companies and growth of firm have positive and statistically significant at 1 percent significance level, leverage and loss ratio have negative impact and statistically significant at 1 percent significance level, tangibility of asset and premium growth have positive impact and statistically significant at 5 percent significance level, but liquidity, inflation and economic growth rate have no significant impact on the profitability of insurance companies even at 10 percent significant level. From all the explanatory variables, size of company, tangibility of asset, firm growth, premium growth and economic growth have positive coefficient and leverage, liquidity, loss ratio and inflation has negative coefficient.

Conclusion

Based on the findings from the descriptive analysis, the researcher can conclude that Ethiopian insurance companies were generating on average positive ROA during the study period. Based on the findings from the regression analysis, the researcher can be conclude that profitability of Ethiopian insurance companies was best explained by the explanatory variables included in the model and it was also conclude that financial performance was highly affected by the company factors and the external factor has also an impact on profitability of Ethiopian insurance companies.

Recommendations

Based on the study findings, the profitability of insurance companies measured by ROA were mainly affected by the company factors. Since the company's management has control over the insurance company's specific factors, it was possible to improve the financial performance of insurance companies by giving more attention on the identified company's specific factors particularly; size of company, firm growth and premium growth. Since, they were found to be the most positive and statistically significant variables that affect profitability of insurance companies measured by ROA.

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